

AMENDMENT TO THE CLAIMS

Claim 1-5 (canceled)

6. (withdrawn) The battery of claim 1, wherein said battery is a bipolar battery.

7. (currently amended) A [nickel-metal hydride] multi-cell battery, comprising:

    a battery case; and

    a plurality of [nickel-metal hydride] electrochemical cells housed in said battery case, each of said cells including:

        at least one [nickel hydroxide] positive electrode, at least one [hydrogen storage alloy] negative electrode and an [alkaline] electrolyte; and

        an enclosure housing said at least one positive electrode, said at least on one negative electrode and said electrolyte, said enclosure including a gas permeable membrane allowing passage of cell gases into and out of said cell but preventing passage of said electrolyte out of said cell, said membrane comprising at least one corrugated layer of a membrane material.

8. (currently amended) The battery of claim 7, wherein said ~~gas permeable membrane~~ membrane material ~~comprises~~ is a polymeric material.

9. (currently amended) The battery of claim 7, wherein said membrane material ~~comprises~~ is a hydrophobic material.

10. (canceled)

11. (original) The battery of claim 7, wherein said membrane protrudes outwardly from said cell.

12. Canceled.

13. (original) The battery of claim 7, wherein said plurality of cells are electrically coupled in series.

Claims 14-16 (canceled)

17. (original) The battery of claim 7, wherein said battery case is a common pressure vessel for each of said electrochemical cells.

18. (original) The battery of claim 7, wherein battery operates at a peak pressure of at least 10 psi.

19. (original) The battery of claim 7, wherein said enclosure is formed from an electrically nonconductive material.

20. (original) The battery of claim 7, wherein said enclosure comprises a polymeric material.

21. (withdrawn) The battery of claim 7, wherein each of said electrochemical cells is a bipolar cell.

22. (currently amended) A [nickel-metal hydride] multi-cell battery, comprising:

    a battery case; and

    a plurality of [nickel-metal hydride electrochemical cells] housed in said battery case, each of said cells including:

        at least one [nickel hydroxide] positive electrode, at least one [hydrogen storage alloy] negative electrode and an [alkaline] electrolyte; and

        an enclosure housing said at least one positive electrode, said at least one negative electrode and said electrolyte, said enclosure having an opening allowing passage of cell gases into and out of said cell, said opening being a circuitous pathway formed by said hydrophobic material.

23. (original) The battery of claim 22, wherein said hydrophobic material is disposed along the periphery of said opening.

24. (currently amended) The battery of claim 22, wherein said hydrophobic material [at least] partially seals said opening.

25. (canceled)

26. (original) The battery of claim 22, wherein said hydrophobic material is gas permeable.

27. (original) The battery of claim 22, wherein said hydrophobic material comprises at least one hydrophobic layer.

28. (original) The battery of claim 22, wherein said plurality of cells are electrically coupled in series.

Claims 29-31 (canceled).

32. (original) The battery of claim 22, wherein said battery case is a common pressure vessel for each of said electrochemical cells.

33. (original) The battery of claim 22, wherein said battery operates at a peak pressure of at least 10 psi.

34. (original) The battery of claim 22, wherein said enclosure is formed from an electrically nonconductive material.

35. (original) The battery of claim 22, wherein said enclosure comprises a polymeric material.

36. (withdrawn) The battery of claim 22, wherein each of said electrochemical cells is a bipolar cell.

37. (withdrawn) A bipolar electrochemical battery, comprising:

a battery case; and

a stack of at least two serially coupled electrochemical cells housed within said case, each of said cells comprising:

a positive electrode, a negative electrode, and an electrolyte; and

an enclosure housing said positive electrode, said negative electrode and said electrolyte, said enclosure including a gas permeable membrane allowing passage of cell gases into and out of said cell but preventing passage of said electrolyte out of said cell.

38. (withdrawn) The battery of claim 37, wherein said membrane comprises a polymeric material.

39. (withdrawn) The battery of claim 37, wherein said membrane comprises a hydrophobic material.

40. (withdrawn) The battery of claim 37, wherein said membrane comprises at least one layer of a membrane material.

41. (withdrawn) The battery of claim 37, wherein said membrane protrudes outwardly from said cell.

42. (withdrawn) The battery of claim 37, wherein said membrane comprises at least one corrugated layer of a membrane material.

43. (withdrawn) The battery of claim 37, wherein said at least one negative electrode comprises a hydrogen storage alloy.

44. (withdrawn) The battery of claim 37, wherein said at least one positive electrode comprises a nickel hydroxide material.

45. (withdrawn) The battery of claim 37, wherein said electrolyte comprises an alkaline material.

46. (withdrawn) The battery of claim 37, wherein said battery case is a common pressure vessel for each of said electrochemical cells.

47. (withdrawn) The battery of claim 37, wherein said battery operates at a peak pressure of at least 10 psi.

48. (withdrawn) The battery of claim 37, wherein said enclosure comprises a first electrically conductive portion electrically coupled to said at least one positive electrode and a second electrically conductive portion electrically coupled to said at least one negative electrode, said first conductive portion electrically isolated from said second conductive portion.

49. (withdrawn) The battery of claim 48, wherein said first conductive portion and said second conductive portion comprise a polymeric material.

50. (withdrawn) The battery of claim 48, wherein said first and second conductive portions comprise a carbon-filled polymeric material.

51. (withdrawn) The battery of claim 48, wherein adjacent cells have said first conductive portion of one cell contacting said second conductive portion of an adjacent cell.

52. (withdrawn) The battery of claim 48, wherein said enclosure further includes an electrically nonconductive polymeric material sealed peripherally to said first and second conductive portions, said gas permeable membrane being at least a portion of said nonconductive material.

53. (withdrawn) A bipolar electrochemical battery, comprising:

a battery case; and



a stack of at least two serially coupled electrochemical cells housed within said case, each of said cells comprising:

at least one positive electrode, at least one negative electrode, and an electrolyte; and

an enclosure housing said at least one positive electrode, said at least one negative electrode and said electrolyte, said enclosure having an opening allowing passage of cell gases into and out of said cell; and

a hydrophobic material positioned relative to said opening so as to prevent passage of said electrolyte out of said cell.

Claim 54-69 (canceled)

70. (new) The battery of claim 7, wherein said at least one negative electrode comprises a hydrogen storage alloy.

71. (new) The battery of claim 7, wherein said at least one positive electrode comprises a nickel hydroxide material.

72. (new) The battery of claim 7, wherein said electrolyte comprises an alkaline material.

73. (new) The battery of claim 22, wherein said at least one negative electrode comprises a hydrogen storage alloy.

74. (new) The battery of claim 22, wherein said at least one positive electrode comprises a nickel hydroxide material.

75. (new) The battery of claim 22, wherein said electrolyte comprises an alkaline material.